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NOTES ON SOME OF THE MOST FREQUENT FORMS OF SKIN DISEASE.

BY F. B. GREENOUGH, M. D.

Having had, since July 1, 1873, over eight thousand cases under observation and treatment in the department for skin and venereal diseases at the Boston Dispensary, besides a certain number in private practice, much fewer but naturally more thoroughly observed, I have thought that the privilege of seeing such a large amount of material carried with it the duty of utilizing it in such a way that others as well as myself (and let us hope the patients) should be benefited by it. It is to the desire of being able to do so that the proposed notes on some of the most frequent cutaneous affections owe their being. While not hoping to be able to give any original views on the subject, I shall endeavor to deduce from these cases some practical suggestions, more especially with regard to diagnosis and treatment, which may be of service to the general practitioner, under whose care such cases constantly come, and who may not have the inclination or the time to look up the subject in the exhaustive treatises written by and addressed to specialists. Before treating of the different diseases of the skin that the physician is likely to be consulted for, a few words on the subject in general may not be out of place. The objections to perambulating or out patients in general as affording a basis for scientific deductions obtain with increased force in the case of those afflicted with cutaneous disorders; for while in common with all out-patients they are irregular in their attendance, disobedient in carrying out instructions, apt to run from one charitable institution to another, etc., in addition to this is the fact that the treatment of skin diseases is in a great measure local, requiring more time and trouble than they will give, and necessitating frequent bathing and washing, the appliances for doing which properly they do not possess.

The extent to which going from one institution to another may be carried is shown by the following case, which was told me as an actual fact: a patient suffering from some chronic trouble having gone the rounds of all the hospitals and dispensaries where gratuitous advice is given, and having got his medicine or receipt from each, consulted a friendly apothecary as to which would be the best to take. It must therefore be admitted that for strict statistical statements as to the result of treatment, duration of disease, etc., our out-patient departments are of little value. Still, general deductions can be drawn which will be of service to the observer, and will be accepted as valuable, or otherwise, by his colleagues, as they know him to be candid and unbiased, or the reverse. Instead of being able to say, as the family or visiting hospital physician can, so many cases were treated in such a way, and of that number so many got well, so many improved, so many were not relieved, and the average duration was so many days, the physician to out-patients must say, so many cases were treated, with on the whole good, bad, or indifferent success. It is true that exact results have been given, but the patients must have been very different from those that have come under my observation, for although some of them come regularly and give the opportunity of keeping an exact record of their cases, they are a small proportion of the whole. Certainly, if I should assume that all those who had not finally reported themselves as cured must be considered so, on the ground that had they not been they would not have ceased coming, my success would far exceed anything yet claimed.

One great advantage that the physician has in treating a disease of the skin is that he can judge it by his own senses; he can see and touch it, instead of having to be guided in his examination by such vague and unreliable evidence as is given by the feelings and sensations of the patient. It may seem superfluous to say that, having this advantage, he should avail himself of it; in other words, that when consulted for some cutaneous trouble, the physician should make the patient show him what the trouble is. Nevertheless, it is far from uncommon for a diagnosis to be made and a prescription given, or perhaps only the latter, without the prescriber's having seen what he was prescribing for. The following case is an extreme one, but not without parallel. A gentleman having contracted a gonorrhœa was put by his medical adviser on a course of copaiva. In a few days he was annoyed by an eruption of red spots on the lower part of his abdomen, to which his attention was called by the fact of their itching greatly. On again consulting his doctor he was told (without any examination) that it was a rash due to the copaiva, and that drug was stopped. Not getting any better, but rather the reverse, he was sent to me. On examination the hairs about the pubes and lower part of the abdomen were found to be very thickly populated by pediculi pubis, and the only "rash" present was due to his finger nails.

It is not only important to see the eruption, but to get as general and comprehensive a view of it as possible, as its distribution and grouping are often important in differential diagnosis. It would be possible in some cases of psoriasis, at a certain stage of the disease, to pick out one or two spots, say on the arm, from seeing which alone no dermatologist could say whether the case were one of psoriasis, eczema rubrum, a syphilitic eruption, or perhaps herpes tonsurans. Of course a patient cannot always be stripped, but it is important to bear in mind that the first step towards properly understanding and treating a disease of the skin is to see it, and all of it, if possible. This being granted, we have the great advantage of being in a measure independent of what at best is often vague, contradictory, and unreliable, the history of the case as given by the patient.

In no branch of medicine have the theories of the humoral pathologists taken such firm root (with the public) as in dermatology; the first demand that the physician will have made on him by his patients, in nine cases out of ten, be they rich or poor, wise or ignorant, will be for something to purify the blood, or "blood medicine," and what is more, if the demand is not complied with in many cases, he will lose the confidence of the patient if not the patient himself. By almost universal consent all eruptions are looked upon as nature's means of throwing off certain effete or peccant humors; hence the supposed danger of interfering by local means of treatment.

The amount of phthisis, rheumatism, gout, and other chronic ailments that exists, due entirely in the opinion of the sufferers and their friends to some eruption having been driven in by an ignorant doctor, is enormous. We all of us probably remember when, as children, one or two sebaceous follicles on our foreheads or chins having become occluded, the imprisoned sebum, acting as a foreign body, set up an inflammatory action which ended in suppuration and ejection of the offender; in short, when we had a pimple or two we were put on a short allowance of butter and were not allowed any gravy on our potatoes.

The reasons for this general belief in a connection between an eruption and some impurity of the blood are not very hard to find, as there is something plausible in the idea, and it is, moreover, to a certain extent borne out by analogy. The eruptive fevers are supposed to be due to a contagious poison which affects the blood, and their chief characteristic is an eruption. Still stronger is the case of syphilis, a contagious disease caused by the actual absorption of an entity which we call the virus, the nature of which we cannot define, but which we know is contained in the secretion of a syphilitic sore or in the blood of a syphilitic patient, and one of the first manifestations of its working in the system is an eruption. In short, we must admit that it is not to be wondered at that, in the popular mind, a rash should be attributed to some morbid condition of the circulating fluid.

Of the many debts which dermatology owes to Hebra one of the greatest is for his having demonstrated that the skin is a constituent of the human frame, which may and in many cases does suffer from purely local disease without any constitutional or general trouble as a cause. His investigations apply more especially to eczema, and his line of argument may be briefly stated as follows: —

By the use of certain irritants, croton oil for example, on the skin we produce inflammatory action, with a dry, scaly condition, or papules; if the irritation is kept up, vesicles, and, carrying the experiment still farther, pustules; in short, the various stages of eczema. This process of investigation, by the bye, was what led Hebra to the all-important truth that the diseases which had before been called pityriasis, lichen, eczema, and impetigo were merely different conditions or stages of the same pathological process, namely, eczema. From these experiments the deduction is clear that, if by mere local irritation a certain condition of the cutis can be produced, we are not justified when we find that condition of the skin to attribute it to some constitutional vice, some humor of the blood, for example. The argument could be carried out in the case of acne and furuncles, both of which are popularly supposed *par excellence* to show impurity of the blood, and both of which are, with only a difference of degree, the same pathological process, namely, the effort of the living tissues to get rid of a foreign substance: in the first case the imprisoned sebum of a gland, in the second a slough of the cutaneous tissue. Both of these manifestations can be produced artificially: the first by sticking a small splinter or sliver, which will not penetrate the epidermis, into the skin, and the other by shoving a larger one through so as to reach the subcutaneous areolar tissue. It is true that when we attempt to go farther and ask what it is that causes the sebaceous gland to become occluded, or the slough to form, we can get no answer, but there is no reason to suppose, nor can we conceive how it is possible that any special state of the blood should do so.

Not to carry the discussion farther than this connection will warrant, it may briefly be stated that the cutis, like other parts of the body, may suffer from local trouble, inflammation, abnormal nutrition, etc., without there being any general constitutional disease, and that such an eruption, an eczema, for example, being local, and not a means of throwing off the impurities of the system, there is no danger in curing it if we can, but on the contrary every reason why we should do so; and further, the trouble being a local one, the treatment most likely to succeed will also be local. The acceptance of this fact has been of great service to dermatology. I can well remember a child who for years, from early autumn to late spring, suffered tortures from a general eczema; the different members of his family took turns in sleeping, or rather in passing the night with him, to prevent his tearing himself to pieces. Nothing was done for fear of "driving the disease in," and yet one week of appropriate treatment would have made him comparatively comfortable.

To be strictly logical, however, it must be confessed that the fact of having proved that an eczema may be called forth by mere irritation, while showing that it may be simply a local disease, does not prove that it may not sometimes be due to something else. In other words, the fact that *a* (local irritation) will produce *b* (eczema) does not prove that *x* may not also do so. Although convinced that as a rule an eczema is merely a local cutaneous disturbance, experience forces me to believe that there is a class of cases behind which some unknown factor exists. We see cases which yield very slowly and as it were reluctantly to treatment, in which just when we seem to be getting the better of the disease it breaks out in some other spot, or as soon as the skin seems to have almost regained its normal condition a relapse takes place, and this over and over again.

We find this state of things in members of the same family. There is no more reason to attribute this to any vice of the blood than to some trouble of the nerves regulating the circulation or nutrition, for example, but for some reason or other these persons are liable to have eczema. Even the strongest advocates of the local nature of eczema must admit that some persons have a decided tendency to this local manifestation.

In this connection it seems to me that Hebra's reasoning may be turned against him. Why is it that certain individuals can handle ivy or dogwood with perfect impunity, while others cannot come in contact with it without its calling forth an acute eczema? Even the example of an irritant which he uses, that is, croton oil, has a very different effect on different individuals, in some cases requiring several applications before the eruption is brought forth, in others one only being sufficient. It would be very interesting to know whether those who are susceptible to the poison of ivy, etc., are liable to have attacks of eczema apart from the result of irritation; but from my own experience I have not been able to draw any such conclusion, nor have I been able to find any statistics bearing on the subject.

I cannot help thinking, as far as eczema is concerned, that there may be a germ of truth in the hobby which the school of the St. Louis Hospital, headed by Bazin, has ridden so hard, namely, the connection of eczematous eruptions with the "arthritic diathesis." What I mean is that I think that many of the cases of persistent and recurrent eczema that I have seen have occurred in subjects whose urine is apt to contain an excess of uric acid and urates, and who have a tendency to rheumatic or gouty manifestations. Beyond this theory I cannot go; I have not found marked benefit from the antiarthritic arsenal in such cases. It must, however, be borne in mind that these weapons, that is, the alkalies, iodide of potassium, colchicum, salicylic acid, etc., are not always brilliantly effective against rheumatism and gout themselves.

All that can be said is that in certain cases there does seem to be something beyond a simple cutaneous lesion; what it is we do not know, but the practical point is that there is no probability of its being anything which should prevent us from curing the disease if we are lucky enough to be able to do so.

One very important point in successfully treating a disease of the skin is that the local applications should be properly made. It is very easy to give directions for applying an ointment, plaster, or wash, one, two, or three times a day, but to be sure that it is properly and thoroughly done is another thing, and this certainty can only be attained by the physician's taking the trouble at first to show the patient or nurse how to do it.

(*To be continued.*)

THREE CASES OF DYSENTERY TREATED SUCCESSFULLY BY LARGE DOSES OF IPECACUANHA GIVEN BY THE NON-EMETIC PLAN.[1]

BY EDWARD J. FORSTER, M. D.,

Physician to Out-Patients, Boston City Hospital.

CASE I. July 20, 1873, I was called to B. H., a teamster about thirty years of age. He was in bed, suffering from considerable pain in his bowels, and tenesmus, and having frequent bloody and slimy stools. I prescribed a full dose of laudanum, to be followed in twenty minutes by twenty-five grains of pulverized ipecac suspended in syrup of orange peel, which is said to conceal the taste of the ipecac quite well. The patient was to remain in the horizontal position, and to abstain from food and liquids for at least six hours; the ipecac, if rejected, to be repeated every twenty minutes until retained. The medicine was to be given again in six hours from the retained dose, unless in the mean time the character of the stools showed a decided change for the better. At my visit the next day, I found that my patient had retained the first dose of the medicine, and that all dysenteric symptoms had subsided. Giving directions in regard to the diet for the next few days, I left the case, with instructions to send for me if any relapse took place.

CASE II. August 16, 1873, I was called to Miss S. R., a seamstress, twenty-three years of age, whom I found with a pulse of 130, and a temperature in the axilla of 102.2° F. For a day or so she had been suffering from a slight diarrhœa. At the time of my visit, however, the dejections were bloody and slimy, and were accompanied with tormina and tenesmus. Ipecac was given in the same manner as in the previous case, and the next day her sister called at my office and informed me that my patient was much better, and that I need not make a visit. Two days later I was again called, and found that she was thoroughly convalescent as regarded the dysentery, but in need of sleep, for which I prescribed ten grains of Dover's powder. In this case, the first dose of the medicine was retained without difficulty.

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[1] Read before the Boston Society for Medical Observation, January 15, 1877.

CASE III. August 21, 1873, I was called to J. D., a teamster, about forty years of age, who had fallen from his team, but had sustained no other injuries than a few slight bruises about the head. He was, however, considerably frightened about himself, thinking that he had received some internal injuries. He informed me that he had been suffering from dyspepsia, and was afraid that he had now taken cold, as his clothes were thoroughly wet from perspiration, and in that condition he had been driven home from where he fell, a distance of about six miles. He complained of pain in the bowels, for which one eighth grain doses of morphia were given. This failed to prevent an attack of diarrhœa, which by the 23d, two days after I was first called, became dysenteric, tormina continuing with almost constant tenesmus. The sulphate of magnesia and sulphate of morphia in small and frequent doses, five grains of the former with one twelfth grain of the latter, were prescribed, and this treatment was continued for four days; but as at the end of that time the symptoms had shown no abatement of their dysenteric character, it was decided to give the ipecac in the same manner as described in the foregoing cases. The first dose was rejected, but a second was retained, and was repeated in six hours. The next day I found the stools natural and my patient convalescent, so that I did not see him again for three days, when I made my last visit.

The foregoing cases are reported for the reason that I believe, from conversations with other physicians, that the treatment of dysentery by large and at the same time non-emetic doses of ipecac has not been so extensively tried in this vicinity as I am convinced it should be. Those who have read of this method of treatment and have not tried it are no doubt somewhat governed by the feeling that a drug which they have been taught to look upon as an emetic, and one of our most common ones, cannot be given without being followed by emesis, and therefore cannot affect a case of dysentery, except so far as emesis might be beneficial.

The use of ipecac in this manner has been revived of late years on account of the success which has followed its use in the East. A singular fact in the history of the drug is that when introduced into Europe from Peru it was under the name of the Radix Anti-Dysenterica.

SALICYLIC ACID IN IRITIS.[1]

BY LEONARD WHEELER, M. D.

My own experience with salicylic acid in iritis is worthy of record. I have suffered repeatedly from this affection in each eye, in all twelve times, — eight full attacks and four abortive. In each full attack there was about a week during which the pain, especially at night, was very severe. Till the last time, I found it best controlled by one quarter of a grain of morphia, given subcutaneously in the temple. In my last attack, I took, one evening, in the stage of invasion, a drachm of salicylic acid in ten-grain doses every hour. There was no change for the better or worse for some days after. Then, after exposure, I rapidly grew worse; pain came on, and I took opium by the mouth and subcutaneously for two nights, with only partial relief. On the third evening, I tried salicylic acid as before, slept all night, and awoke with a clear head and good appetite. I took the acid every evening, gradually diminishing the dose to thirty, twenty, and ten grains, and had no more pain. The eye seemed to clear up more rapidly than usual. I took from ten to twenty grains every evening for three weeks, and after the interval of a fortnight, during which the eye again became threatening, for four weeks longer, sometimes with additional morning and noon doses, in case I felt any rheumatic pains. This experience seems not only of practical value, but also supports the argument in favor of the rheumatic origin of what is indeed usually called chronic rheumatic iritis. But of the oculists I have consulted, several disclaimed the belief in such an origin, saying that a majority of their patients had no rheumatic history, and, as to hereditary acquirement, that there were few families without rheumatism. I suppose I should be reckoned among patients without such a history, never having had any more definite rheumatic symptoms than pain, more or less acute on motion, in the sciatic, intercostal, and lumbar regions. The lumbar pain, for two years past, has often been sufficient to keep me awake. While I have been taking salicylic acid, these symptoms have been much less frequent and severe, and their coming and going really seem to be controlled by the drug. If they come, it appears to be when, for a few days, I am taking little or no acid, and larger doses remove them. In one dispensary case, under similar circumstances, the acid seemed to be a remedy. In two others it was not successful. I have experienced no unpleasant effects from this long and free use of the acid, except a slight constipation.

The insolubility of salicylic acid in water makes its administration in liquid form difficult. Ten parts of the acid and eight of borax, with one hundred of water, make a clear solution of six grains to the drachm. I have tried various others, but none so good as this. The largest amount I have seen recorded as taken is three hundred and ninety grains in twelve hours, which produced no ill effect.

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[1] Extracts from a paper read before the Worcester Society for Medical Improvement, January 3, 1877.

RECENT PROGRESS IN OBSTETRICS AND GYNÆCOLOGY.[1]

BY W. L. RICHARDSON, M. D.

GYNÆCOLOGY.

Subperitoneal Fibroid Tumors of the Uterus. — Ovarian tumors have been successfully removed by means of an incision made through the posterior vaginal wall; but, so far as we know, to Dr. R. S. Sutton[2] belongs the credit of being the first to attempt the removal in this way of a fibroid tumor of the uterus. The patient was a colored woman, fifty years of age. An examination showed a solid tumor which filled the right half of the pelvis, and crowded the uterus from the median line towards the left. The patient was placed under ether, and, the bladder having been emptied, an incision was made through the posterior wall of the vagina at a point midway between the cervix uteri and the rectum. The hæmorrhage which followed was checked by the free use of cold water. An incision was then made through the peritoneum. The hand of the operator, having previously been dipped in carbolized water, was then carried well up into the pelvic cavity, and the adhesions of the tumor were forcibly broken up. On withdrawing the hand, the small intestines followed into the vagina. By means of a pair of strong vulsellum forceps, the tumor was drawn down into the vagina, the lips of the vaginal incision being worked back over the growth. The exposed capsule was then incised and stripped back over the tumor, which was found to be attached to the posterior wall of the uterus by a fleshy growth. Two vessels of this pedicle were tied. The pedicle was returned, together with the folds of the small intestines, into the abdominal cavity. No stitches were taken in the vaginal wound. The operation lasted about forty minutes. The patient died on the morning of the fourth day, of peritonitis. At the autopsy a wound of the small intestine was found, which had been made by a prong of the vulsellum.

Dr. C. B. King[3] reports the case of a woman, aged thirty-six, in which he removed a fibroid tumor by abdominal section. The tumor was slightly oval in shape, and about the size of a child's head at birth. It was attached to the fundus of the uterus by a short, narrow pedicle of about a quarter of an inch in length and three quarters of an inch broad. There were no attachments between the uterus and the abdominal viscera, although the uterus was bound to the anterior abdominal walls by adhesions of recent origin. The tumor was removed by means of a wire-rope écraseur, through an opening about five inches in length, made in the abdominal wall, and extending from a point in the median line about two inches below the umbilicus. The wound was closed with silver wire, the clamp being fixed at the upper part of the incision. The cut end of the pedicle was touched with persulphate of iron. The operation lasted about one hour. The patient made a good recovery.

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[1] Concluded from page 198.

[2] Chicago Medical Journal and Examiner, December, 1876.

[3] Amer. Jour. of Med. Sciences, January, 1877.

Dilatation of the Uterus. — In an address delivered before tne Obstetrical Section of the British Medical Association, Dr. Atthill[1] gives the results of his experience in operations performed with a view of effecting a dilatation of the uterine canal. He believes that the operation is not only harmless but even justifiable, provided always that it is performed properly and only in suitable cases. In no case has he ever failed, or observed a single bad symptom follow the operation. A careful examination of the reports of cases in which serious or unpleasant symptoms have followed the operation shows that such results occurred generally when the operation was performed, 1st, for the relief of a dysmenorrhœa which was dependent on a narrowing of the cervical canal; 2d, when the canal was encroached upon by a fibroid of large size and unyielding structure; 3d, when the process had been attempted in too rapid a manner by means of metallic dilators; or, 4th, when it has been protracted over several days.

Dr. Atthill believes that the following rules should govern the performance of this operation: 1st. The cervix uteri should never be dilated for the cure of a dysmenorrhœa, or a sterility, which is dependent upon a narrow cervical canal or a conical cervix. 2d. It should never be dilated when a large and dense intramural fibroid presses upon and, to a certain degree, obliterates the cervical canal. 3d. Metallic dilators should never be used. Either sponge or sea-tangle tents should be selected, since these latter expand slowly and gradually. 4th. The process of dilatation should never be continued beyond forty-eight hours. In cases where the cervix is not sufficiently dilated at the end of that time it is better to postpone further interference for some weeks.

As regards the treatment of a so-called mechanical dysmenorrhœa by dilatation, Dr. Atthill believes the procedure to be a mistake. No permanent benefit ever resulted from it, and in several cases he has known of grave symptoms, and, in one, death to follow the attempt. With reference to the time occupied by the operation, it seems evident that unpleasant symptoms are likely to occur in a direct ratio to the length of time over which the dilatation extends. In cases where a large fibroid of dense structure is developed, the operation of dilatation is objectionable for two reasons: first, because any attempt at operative interference from within the uterus is impossible; and second, because inflammation is liable to follow, and that too in patients in the worst possible condition to resist such an attack.

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[1] Brit. Med. Jour., August 12, 1876.

Sponge Tents. — There are few gynæcologists who are not willing to admit that the use of sponge tents is liable to produce abrasions of the mucous membrane which lines the cervix uteri, and that the tissue of the sponge is likely to absorb fluids which may subsequently become the cause of a septic poisoning. Dr. J. A. M'Farran[1] proposes a new instrument, by the use of which he hopes that these two sources of danger may be avoided. The instrument consists of a small metallic or hard rubber tube. Attached to the perforated extremity of this is a sponge tent, which is enveloped in a closely-fitting covering made of thin India rubber. At the other end of the tube is a distensible rubber reservoir for the water which is to be used for the dilatation of the sponge. As the sponge dilates the rubber covering stretches, protecting the mucous membrane from injury and rendering any absorption of the discharges impossible. If deemed advisable, the rubber covering may be made so as to envelop the entire apparatus, and thus the sponge will be kept in constant contact with the water, which will readily find its way from the rubber reservoir through the perforation at the end of the tube.

Dr. Seyfert, professor of the Gynæcological Hospital (Philadelphia), has used this new form of sponge tents on several occasions with the most satisfactory results and, in a report of a series of cases, speaks of the invention of Dr. M'Farran as the nearest approach to a safe and reliable tent which is at present used by gynæcologists.

Excoriations of the Os and Cervix Uteri. — In a valuable paper on the above subject, Dr. Richard J. Halton[2] gives the result of his experience in observing and treating a large number of cases in the Kells Dispensary, Ireland. During a practice of twelve years he has only once observed a uterine excoriation in an unmarried woman. The majority of the cases occurred between the twenty-fifth and the thirty-fifth year. As a rule, both lips of the uterus were simultaneously affected. The chief point of the paper, however, is the allusion to a new symptom, to which Dr. Halton calls especial attention, and which he is inclined to consider pathognomonic of the disease. This is a numbness of one leg, usually on the left side, and this feeling of numbness generally begins in the thigh, and runs down the leg. Occasionally, though rarely, it is met with in the arm. This symptom, when present, is very marked and unmistakable. The patients declare that they cannot even feel that their own hands are touching the leg. In some cases it is accompanied by a tingling or stinging sensation. There will also be noticed, not infrequently, a distinct tenderness on pressure in the ovarian region of the affected side. Moreover, the diminution and gradual disappearance of these symptoms are indications of a renewed healthy action and a consequent cure, even before the local affection shows much if any improvement.

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[1] Philadelphia Medical Times, July 8, 1876.

[2] Dublin Journal Med. Science, June, 1876.

The treatment invariably adopted for the cure of these excoriations was the prescribing of measures calculated to reduce the local congestion, and touching the excoriated surface with the strong nitric acid. Astringent injections were entirely discarded, as of little if any use. Strychnine in small doses in combination with dilute nitric acid was found to be very serviceable.

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PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

DECEMBER 11, 1876. *Muscular Paralysis following Injury to Shoulder.* — DR. WEBBER showed two cases in which, as a result of injury to the shoulder, paralysis had followed, rendering it impossible for the patients to raise the arm horizontally from the body, this inability being due to the paralysis of different muscles in the two cases, that is, the deltoid in one case, and the serratus magnus and deltoid in the other.

The first case was of five weeks' standing. The man had fallen, striking his head and shoulder. There was paralysis of the deltoid, the anterior fibres being most affected. He had nearly recovered, but still showed some loss of power, and there was very great diminution of reaction to the faradic current in the anterior fibres of the deltoid; the lateral and posterior fibres responded more readily. When first seen there was almost entire loss of power to raise the arm, and when told to do so he leaned the body back so as to support the arm on the chest and thereby elevate the hand. The scapula remained during all such efforts firmly fixed to the thoracic wall, in marked contrast to the second case. The deltoid was the only muscle affected.

In the second case there was paralysis of the serratus magnus in consequence of pressure of the head of the humerus upon the long thoracic nerve, there having been an unreduced dislocation of the humerus for eight days. When the patient tried to raise his arm to a horizontal position directly forward, the internal edge of the scapula projected backwards, starting away from the thoracic wall. On the healthy side the irritation of the anterior fibres of the deltoid with the faradic current produced the same appearance artificially. On the healthy side the serratus magnus responded readily to the faradic current when applied to the axilla or to the nerve above the clavicle, but on the diseased side the response was very slight, yet rather more than when the patient was first seen. A slight loss of power in the deltoid was also shown by a difference in the reaction of that muscle on the two sides.

Dr. Bigelow said that in the second case he should doubt whether the lower fibres of the serratus magnus were paralyzed, as in two cases of entire paralysis of that muscle which he had seen, the lower angle of the scapula was drawn towards the spine when the arm was raised, which did not take place in this case.

In answer to a question as to the reason of the greater frequency of trouble resulting from injury to the shoulder than to other joints, **Dr. Webber** said that he supposed it to be due to the situation, anatomical relations, etc., of that joint, and to the fact that a slight disability in the shoulder is more readily noticed than in other joints, — the hip, for instance, — because the motions of the shoulder-joint are so much more complicated.

Hypertrophy of the Adenoid Tissue at the Vault of the Pharynx. — **Dr. Knight** spoke of a case of hypertrophy of the adenoid tissue at the vault of the pharynx which had recently come under his observation. The patient was a young gentlemen, a student, who complained of obstruction of the nose, and a consequent affection of the tone of the voice,and a little deafness. On rhinoscopic examination the cause of these symptoms was seen to be the above-mentioned hypertrophy. This adenoid tissue has been fully described by Luschka, and its hypertrophy by Meyer, of Copenhagen. It is sometimes so great as to completely obstruct the posterior nares, and to cover up all the landmarks usually seen in the rhinoscopic mirror. It is said sometimes to hang down below the soft palate. The mass is in some cases comparatively round and hard, and in others appears in clusters, is soft, and bleeds easily. Meyer recommends excision by means of a ring-shaped knife passed along the floor of the nostril.

In some cases Dr. Knight had caused the hypertrophy to subside quickly by applying lunar caustic; in the present instance this did not seem to have much effect, and he was using galvano-cautery with excellent results. It is important to distinguish this enlargement from the more serious tumors which occur in this region. Dr. Knight exhibited a section of a skull showing the situation of the adenoid tissue at the vault of the pharynx.

Liquid Suppositories. — **Dr. Bigelow** showed a syringe for the injection of liquid suppositories into the rectum. He remarked that of the common ways of introducing opiates into the system that by subcutaneous injection was the most rapid; the pain, when frequently repeated, was, however, to some people an objection to its use. He had also seen a case of fatal phlegmonous erysipelas, protracted for ten weeks, resulting from injections into the leg. Opiates in the stomach have the disadvantage of an effect varying with the contents of the stomach. Old people, especially those suffering from diseases of the bladder, often prefer suppositories, but suppositories require time to make and to harden, and are difficult to keep in hot weather. The instrument for their introduction is clumsy and ineffectual. A liquid suppository, not exceeding in bulk one or two drachms, is readily introduced and quickly absorbed. A syringe for its introduction should be small and provided with a square shoulder on the inside, so as to deliver the whole of its contents with accuracy, like a subcutaneous syringe, and should terminate in an extremity so large and blunt that it can be readily introduced.

The instrument shown was a metallic cylinder of the size of the little finger, terminating in a blunt and rounded extremity, and having a graduated screw on the piston. It contained one drachm, and was made by Messrs. Codman and Shurtleff.[1]

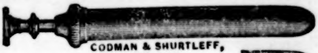

FIG. 1.

FIG. 2.

DR. JACKSON inquired what was the relative efficacy of opiates by the stomach and rectum.

DR. BIGELOW replied that opinions varied on this point, but that he was satisfied that there was no great difference in their effect. One eighth to one quarter of a grain of morphine required from fifteen to forty-five minutes to be felt.

DRS. ELLIS and **MINOT** corroborated the statement of Dr. Bigelow that opiates acted as well by the rectum as by the stomach, and Dr. Minot commended the blunt point of this syringe, as those provided for enemata have usually much too small an extremity. The small ones used for children are often painful and difficult to introduce.

Fracture of the Odontoid Process. — **DR. SWAN** reported the case. An old gentleman, aged seventy-seven, fell down his own stairs and broke his neck. A friend had walked home with him. His gait had been noticed to be somewhat unsteady, but on arriving at his house and seeing him into the entry, the friend had left him, shutting the front door behind him. Shortly afterward a thump was heard, and the subject was found lying at the foot of the stairs. There was the print of a rubber mat, which was lying at the foot of the stairs, on his forehead, showing that he must have fallen head foremost.

DR. FITZ, who had made the autopsy, showed the specimen, and stated that a diffused patch of extravasated blood was found beneath the scalp over the right parietal bone. The various organs of the body gave no evidence of recent changes, with the exception of the spinal cord just below the medulla, which was converted into a reddish-gray pulp over an extent of nearly one inch of its length.

The skull and atlas were dislocated backwards from a complete transverse fracture through the base of the odontoid process, the process itself being retained in its normal position, as the transverse ligament was intact. The posterior atloido-axoid ligaments were torn across, and the tissues behind were infiltrated with recently extravasated blood. The left capsular ligament between the atlas and the axis was also torn. In front, the check ligaments were ruptured, and the occipito-axoid ligament was torn away from its attachments to the body of the axis, the bony surface thus exposed being somewhat more roughened than usual. The upper articulating cartilages of the axis were slightly eroded, in part absent, and the anterior surface of the odontoid process was eburnated. The cancellated structure of the latter was quite porous, and the peripheral portion somewhat thinned. The association of evidences of chronic rheumatic arthritis with the fall and its results are of interest as perhaps, in part, explanatory of the nature of the injuries.

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[1] The cut is one half size, and shows the square shoulder, by means of which the whole contents are discharged.

Enormous Aneurismal Dilatation of the Aorta. — **Dr. Lyman** reported the case and showed the specimen. A. B., aged forty-two, entered the City Hospital September 16, 1875. Twenty-three years ago he had inflammatory rheumatism. In 1863, twelve years before, he had double pleurisy, and then remained in good health until 1872, when he had a fall, striking heavily on the right side, but thought himself to be only slightly injured. About one year before entering the hospital, after "a cold," he felt sharp remitting pains in the epigastrium and through the chest, with "fluttering about the heart" and dyspnœa; he was obliged to lie on the back or left side. At that time there was little or no cough. After two months in bed these symptoms abated, except the "fluttering" and dyspnœa. For the past three months he had had increased dyspnœa and sometimes orthopnœa, sharp, dry cough, inability to lie on the left side, a return of the thoracic pains with increased severity. They were referred chiefly to the space bounded by the right clavicle, nipple, and sternum.

At the time of entrance the præcordial pain was not severe; there was sore throat, no dysphagia, some tinnitus aurium. The heart sounds were normal in rhythm, but a bellows murmur or long, blowing sound replaced the sounds from the mitral and aortic orifices, and was heard over nearly the whole of the front, most distinctly about the middle and to the right of the sternum, and quite marked over the subclavian and right carotid arteries. Cardiac impulse seen over whole front. Pulsation in carotids, brachials, and radials remarkably distinct. Area of cardiac dullness ovoidal, three and one half inches transversely and five inches longitudinally, extending from the right sterno-clavicular articulation downwards to the sixth costal cartilage. Marked prominence of third costal cartilage.

Auscultation and percussion show presence of lung in the space which should be normally occupied by the heart. Loud murmur in right carotid. Impulse in left much less than in the right. Severe pain extending through to right scapula.

October 14th. Greatest dullness over the upper third of the sternum. Both sounds heard between right nipple and the side of sternum, extending from clavicle to two inches below nipple, rough and rasping like rude respiration, and these sounds extended across the lower third of the sternum to the left side. The sounds over the whole front, and especially on the right side, were so intense as to obscure the respiratory murmur. Carotids, left especially, pulsated heavily. Upper third of both backs dull on percussion.

For a few days the patient had complained of pain in the normal cardiac region, extending to the left shoulder, and when the palpitation was excessive the pain was felt in the arm. No thrill or perceptible impulse in the supraclavicular region except the carotid pulsations; not much difference in pupils, if any the left most dilated; right radial softer and more compressible than the left, which was fuller and more resilient. Pulsations in right and left radials synchronous, or with such slight difference as to be of no diagnostic value.

October 30th. The cartilages of the six superior right ribs have become prominent, especially the sixth. Feels more comfortable, and complains only of pain extending through to lower angle and spine of scapula.

November 14th. Complained now of pain, dysphagia, and stiffness of neck. The dysphagia was not constant, but recurred at intervals only. For the past two weeks pain more severe in right shoulder and sternal end of ribs.

November 20th. Marked thrill in right supra-clavicular region noticed for first time, and the following day the inequality of the pupils became more evident.

December 28th. Pulse firm, rhythm more natural, sounds less intense, less throbbing; no pain at all in right side; constant pain in left axilla. No dyspnœa or dysphagia. Feels much better; sat up yesterday.

January 2, 1876. Pain in spine for first time to-day. Decubitus on the right side. Palpitation so severe as to deprive the patient of sleep.

January 20th. Dullness through lower left back, with fine crepitus; sputa viscid, with brownish tinge.

January 29th. Distress in left side; eats little and vomits often.

February 11th. The pneumonia which began January 20th has disappeared, a little cough and nausea only remaining, but the patient has now dysphagia and a husky voice.

March 28th. Dyspnœa excited by the least exertion, and aphonia gradually developing.

May 28th. Œdema of feet and legs supervened, extending to scrotum and abdomen.

August 1st. Dyspnœa and increased pain. Sleeps sitting upright, and occasionally falls out of bed. Continued to fail rapidly, and died, quietly, August 7th.

The minute details of the record it is useless to give, and I have noticed only such points as are of interest in showing the progress of the disease. The extent of the aneurismal dilatation was such as to preclude any reasonable hope of improvement by treatment which was mostly confined to the relief of pain, palpitation, and nausea. Attempts were at first made to give a fair trial to the iodide of potassium, but after several efforts the increase of gastric distress made it necessary to discontinue it.

Autopsy, thirty-six hours after death, by DR. BOLLES. There were four ounces of clear fluid in each pleural cavity, and one ounce in the pericardium. Lungs adherent, not diseased; heart partially adherent. Erosion of dorsal vertebræ. There was slight hypertrophy of the heart, with thickening of the aortic valves, especially at their borders which were hard and rounded. The other valves were not diseased. The aorta presented a general aneurismal dilatation extending from just above the heart into the descending portion, embracing the entire arch, and in size and shape resembling a small stomach with the cardiac orifice at the heart, the pylorus say two inches down the descending portion, and the greater curvature directed upwards. The great vessels of the neck were of course given off from this sac. Its walls were atheromatous to a marked extent and of uniform thickness. There was no deposit of fibrin and no rupture. Liver and kidneys congested.

Aortic Regurgitation. — DR. LYMAN also reported a case of aortic regurgitation and showed the specimen. W. G., laborer, aged forty-three years, entered the City Hospital on the evening of November 9, 1876. He was almost in a state of collapse, extremities cold and cyanotic, dyspnœa urgent, respiration 42, temperature 97.5° F., pulse 120. Placed in a warm bed, surrounded by heaters, and with brandy given at short intervals, reaction gradually took place, and the following morning Dr. Lyman found him sitting up, comparatively comfortable, being unable to lie down owing to the dyspnœa. He complained of pain beneath the sternum and of palpitation. His attacks of distress, he said, were preceded by shooting sensations, extending from the lower extremities to the head. Nothing in his family history worth noting. Reports his general health as good until six weeks before entering the hospital, at which time he says he strained himself lifting heavy weights, and the following day expectorated a small amount of blood. A cough continued for five weeks, but the sputa were free from blood. No hæmaturia followed the strain. Orthopnœa had been increasing steadily for the previous three weeks, with constant pain in the lumbar region. His legs and scrotum were tense, hard, and brawny from œdema, the body, upper extremities, and face slightly so. Moist râles throughout both lungs. Urine passed soon after entrance contained albumen 1.5, with hyaline and granular casts.

November 10th. Temperature 97.6°; pulse 108; urine this morning contained no albumen. Dry cups over loins; jalap cathartic; hock wine, etc.

November 11th. Sibilant and fine mucous râles through both backs. Urine carefully examined immediately after being passed gave specific gravity 1023. Color normal, odor offensive, no albumen, but hyaline, coarse and fine granular and fatty casts, and crystals of triple phosphate and amorphous urates. Aromatic spirits of ammonia, squills, and digitalis were ordered.

November 12th. Has been unable to bear prolonged examination heretofore, but to-day a loud souffle was audible in the fourth intercostal space. Pulse strong and jerking; no resiliency. Less pulmonary œdema; breathing easier and less rapid.

November 13th. More comfortable. Slept the greater part of the night. From six P. M. to eight A. M. passed eighty ounces of urine. Dorsal decubitus possible for first time since entrance. No albumen in urine.

November 14th. Urine, twenty-four ounces; a trace of albumen, with hyaline and granular casts.

November 19th. Condition much the same. Urine varies from fourteen to thirty ounces. Digitalis and Fowler's solution were ordered; also one fifth of a grain of elaterium hourly until bowels moved.

November 20th. Marked diminution in the anasarca. Breathes quietly and easily, and reclines on his back without discomfort. With arms in erect posture the pulse is uniform, but firm and sharp. Throbbing in external carotids is strongly marked; no visible impulse in jugulars. Pulsation very manifest in supra-clavicular spaces, most on the left. *No extension of cardiac dullness on percussion.* Apex beat very obscure, but most perceptible on a level with lower edge of sternum, two and one half inches to left. No murmur over apex, but rhythm very irregular. Diastolic souffle in fifth intercostal space, more marked as you ascend to the third intercostal space, and thence obliquely to the right to the centre of the sternum.

November 25th. Pulse has become steadier and more regular. Prepuce and scrotum punctured to relieve œdema. A trace of albumen in urine. No casts found.

November 29th. Whisky in repeated doses was needed for severe attack of dyspnœa during night. Urine, thirty ounces. Albumen 1.5 per cent. Digitalis continued, with chloroform and opium at night.

December 1st. Pulse more regular. Some lividity of hands. Urine, thirty-one ounces.

December 5th. House-officer called in night, and found the patient suffering from severe abdominal pain. A subcutaneous injection was given, but without relief, and he died at midnight.

Autopsy, forty hours after death. Body large and fat: legs and penis quite œdematous; several ounces of fluid in peritoneum, and a smaller amount in pleuræ. Lungs œdematous; heart enormous, evenly hypertrophied, its walls very strong and thick; weight, two pounds and one half ounce; contained a considerable amount of soft clot. All the valves were perfect excepting the aortic, which were insufficient, partly from thickening of their borders, which was not, however, sufficient to stiffen them much, but chiefly from dilatation and atheroma of the aorta itself. The liver showed passive chronic congestion. The kidneys were large, weighing seventeen ounces. The cortical substance was hard and light colored, not atrophied, but the tubules were rather opaque, the medullary cones red, and the capsules not adherent. The other viscera of the abdomen and the brain were normal.

The chief points of interest in the case are: (1.) The enormous dilatation and hypertrophy, the heart weighing over two pounds, and the fact that so far as the patient knew he was in good health two months and a half before his death. It seems incredible that such disease of the aorta and aortic valves, and such extreme dilatation, with hypertrophy, should have been of recent origin, yet the patient, who, though a laboring man, was an exceptionally intelligent one, declared repeatedly that he was previously in good health. (2.) The absence of more extensive dullness on percussion over the cardiac area, which can be accounted for only by some backward displacement allowing the lung to overlap to a greater degree than usual. (3.) The presence at times of albumen and abundant casts, and again the absence of both. (4.) The use of digitalis, which is considered by many to be contra-indicated in aortic regurgitation. It is very certain that in this case its use was followed by a steadier action of the heart and by relief to the dyspnœa, making the patient's condition much more bearable. The hypertrophy, great as it was, was not sufficiently great to compensate for the aortic insufficiency and push on all the contents of the dilated ventricle. The digitalis gave this organ more firmness and steadiness of action, and by just so much relieved the over-distended auricle and the pulmonary engorgement.

INFANT MORTALITY.[1]

The paper on Infant Mortality, contributed to the Report of the City Board of Health by Dr. W. L. Richardson, offers a clear exposition of our existing knowledge on this subject. It is well known that the most important part in the production of our excessive infant mortality is played by summer diarrhœa. Inasmuch as this disease does not prevail to any appreciable extent in rural districts, nor among the well-to-do classes in cities, it may be assumed to be largely preventable. Nevertheless, we must acknowledge, with Dr. Buchanan, "our singular ignorance of its causes and of the action to be taken for its prevention." To show how unsettled are the views regarding the pathogenetic conditions of this disorder, the four successive reports on Infantile Diarrhœa in Leicester (England) may be instanced. The first, drawn up by Dr. Sloane, attributed the fatality to impure milk. The second, by Dr. Buck and Mr. Franklin, concluded that the chief condition accounting for the high mortality was a water-logged subsoil. The third report was made by Dr. Crane, who was of opinion that solar heat was the chief factor in generating the disease. The fourth, and most recent report, by Dr. Johnston,[2] shows that in Leicester, through bad drainage, the subsoil becomes sewage-logged, a general impurity of the well-waters is established, and a state of matters is engendered highly inimical to health and most favorable for the propagation of disease. The gradients of the sewers are shown to be "frightfully insufficient," so that the sewers become choked and overflow after heavy rainfalls, saturating the subsoil with diluted sewage. The poisoned subsoil is constantly giving off noxious emanations, the baneful effects of which are made more disastrous — and consequently more apparent — by the influence of summer heat. To these conditions Dr. Johnston attributes the excessive prevalence of summer diarrhœa in Leicester, and the remedy which he proposes is, of course, a new and better system of drainage.

Almost all that we know with any certainty about the causes of infantile diarrhœa may be said to be comprised in the following facts: that the disease prevails almost exclusively among infants under one year of age, and only during the summer months; that the use of improper food — that is of any other food than breast milk — is largely concerned in its production; and that it occurs on a large scale only in cities, where it is most rife in the crowded dwellings of the poor, amid such circumstances as seem to suggest some form of putrefactive infection.

From these data, attempts have been made to construct a theory which should explain the origination of the disease. Since summer diarrhœa, on the one hand, does not prevail to any appreciable extent in rural districts, even during the hottest weather, and as, on the other hand, it is not observed even in the filthiest and most crowded cities during the prevalence of cold or cool weather, it was evident that neither excessive heat nor filthy surroundings were sufficient by themselves to generate the disease, the conjunction of these two noxious agencies being indispensable. It was therefore surmised that the

[1] *Fourth Annual Report of the Board of Health of the City of Boston.* 1876.

[2] Medical Times and Gazette, November 11, 1876, page 546.

ætiology of the disease might perhaps be somewhat as follows: that, by the action of solar heat upon filth, *miasmata* of a kind peculiar to densely populated urban districts were generated, whose poisonous influence was concentrated chiefly upon very young children, the inhalation of contaminated air being the instrumentality by which infection took place. A certain collateral part in the ætiology of the disease was also ascribed to the use of indigestible food, for it had been noticed that among the poor in cities breast milk was the only diet upon which infants throve.

Certain researches, however, recently made by Baginsky, seem to help us somewhat towards a partial solution of the complex problem involved in the causation of infantile diarrhœa. A series of experiments was made by him with a view to ascertaining the comparative merits of the various articles which commonly compose the diet of infants. "His investigations," says Dr. Richardson, "were confined to an examination of human milk, cow's milk, Swiss milk (condensed milk), two varieties of farinaceous food, and two specimens of so-called prepared infant's food. After an exposure of these various articles of diet to a temperature of about 67°, for a period of twenty-four hours, he found that the human and the cow's milk remained almost unchanged, the Swiss milk, the two varieties of the farinaceous food and of the artificial food, although appearing still to be perfectly fresh and wholesome, exhibited on examination bacteria in active motion. The reaction of the human milk was alkaline, that of the cow's milk was slightly acid, while the farinaceous and prepared foods gave a very strong acid reaction. After a further exposure of eighteen hours, the cow's milk and the Swiss milk were found to be coagulated, while the farinaceous and prepared foods were in a high state of putrefaction. The human milk, however, still gave an alkaline reaction, and appeared almost unchanged.

The excessive harmfulness of an unsuitable diet under certain conditions of atmospheric contamination is strongly exemplified in the results of a recent inquiry into the causes of mortality in a London orphanage, where four hundred and two out of four hundred and eighty-nine infants received had died. Dr. Ballard, who conducted the investigation, stated in his report that the financial resources of the establishment being such as to forbid the engagement of wet-nurses, the infants were fed upon cow's milk, with the addition of lime-water when necessary; and that, moreover, the room used as a nursery was so ill-situated and arranged as to be incapable of ventilation. In all other respects the children were thoroughly well cared for, "but," says Dr. Ballard, "two of the prime necessities of life, a sufficiency of pure air and appropriate food, were wanting, and the poor infants died at the rate of eighty-two in the hundred."

If we may rely upon Baginsky's researches, the harmfulness of certain articles of food widely used as substitutes for breast milk, and known to play an important part in the generation of infantile diarrhœa, does not depend, as had been supposed, upon their indigestibility alone, but rather upon their liability to undergo early decomposition. In midsummer, under the combined influences of excessive heat and of contamination by filth, this tendency is aggravated to such a degree that the infant's food, when of an unsuitable nature, is actually in a putrescent state when swallowed. It thus appears probable that the miasmata peculiar to crowded and filthy urban districts do not exert their acknowledged noxious action upon the infant directly, by inhalation, but indirectly through the intermediate instrumentality of putrescible articles of diet. The injurious agent, then, is rotten food taken into the stomach, rather than foul air breathed into the lungs.

Dr. Richardson cites the results of Baginsky's researches merely as additional evidence of the unsuitableness of particular articles of food, without attempting to draw further conclusions from the facts observed, the object of his paper being to present certain information in a somewhat popular form. These new data appear, however, to suggest a theory of the pathogenesis of summer diarrhœa, which, in the absence of any more satisfactory explanation of the phenomena, may perhaps be ventured upon. According to this theory the generation of summer diarrhœa is chiefly due to a single morbific agency, namely, the ingestion of more or less decomposed food, this contingency being itself dependent upon a combination of conditions, all of which had separately been recognized as deleterious to infant life. Each, then, of the successive investigators of infantile diarrhœa in Leicester was partially correct in his surmises, when incriminating certain harmful conditions. The solar heat cited by one, the impure milk adduced by another, the ill-drained and sewage-logged subsoil and the choked sewers brought forward by others, in explanation of the phenomena under investigation, were all but so many separate factors contributing to a common result, rapid decomposition of the infant's food.

This theory of infantile diarrhœa appears to account in a tolerably simple and at the same time comprehensive manner for nearly all the phenomena involved in the problem which it is intended to meet; it conciliates the diverse ætiological views hitherto entertained on the subject, and assimilates as so many concurrent factors the various morbific agencies whose harmfulness has already been unequivocally demonstrated.

The preventive measures indicated by this theory should be directed against each of the controllable factors concerned in the generation of infantile diarrhœa. Setting aside the excessive heat of our summers as being, of course, beyond our control and almost wholly unavoidable, the liability of the infant's food to be rendered poisonous by decomposition can undoubtedly be lessened, on the one hand, by measures designed to encourage and facilitate maternal lactation or wet-nursing among the poor; and, on the other hand, by such purification of the air as would result from establishing suitable provision for ventilation, house drainage, and public sewerage in the crowded districts of the city.

The measures proposed by Dr. Richardson for the reduction of the death-rate among infants are in accordance with these views, being as follows: (1.) Greater attention to the general sanitary condition of the city, and the adoption of an improved system of sewerage. (2.) The establishment of public parks and squares in and about the city. (3.) A systematic and frequent inspection of the homes of the poor. (4.) The dissemination of the rules which should govern the bringing up of children. (5.) The establishment of diet kitchens. (6.) The establishment of country homes. (7.) The establishment of infant day asylums. (8.) The establishment of foundling hospitals. (9.) The isolation of contagious diseases.

Dr. Richardson's paper concludes with a carefully drawn up set of rules for the management of infants, which is designed for the instruction of the popular mind. T. B. C.

DEATHS FROM CHLOROFORM IN ENGLAND.

Among the numerous deaths from chloroform which have been recorded recently in the English journals, there is one which we are unable to pass by without criticism. The patient met with an accident last spring for which an arm was amputated at the University College Hospital, and the stump not having healed entirely he returned to the hospital for the removal of a fragment of dead bone. On the former occasion he had taken ether, but for this operation chloroform was administered. The patient, as is usual in these fatal cases, died suddenly, and without warning. A post-mortem examination showed fatty degeneration of the heart. The widow, we need scarcely say, was strongly impressed with the danger of chloroform, and expressed an opinion that the surgeons were not justified in its use. The resident physician, however, coolly informed the jury that this was a death from misadventure, and the jury returned a verdict accordingly. It would seem that the ghastly experience of late years, deaths from chloroform lately having been we might say almost of weekly occurrence,[1] has not been sufficient to raise a disaster like this above the level of a misadventure in the minds of our British colleagues. Americans are proverbially careless of life, but are notwithstanding more or less ready to accept the lessons conveyed by the inevitable penalty. We venture to say there is scarcely an operating theatre in the kingdom which has not witnessed one of these startling catastrophies, and yet the tone in which some of our contemporaries allude to an occurrence of this kind is one of an easy indifference, which cannot fail to strike the reader in this country as peculiar, to say the least. We must not neglect to mention in this connection that the *Lancet*, in a recent leading article on the cure of aneurism by complete temporary pressure, incidentally remarks: "The period of its application being comparatively short, the administration of ether would be justifiable if the pain which is generally complained of after a short time prove unduly severe." This is, indeed, an admission for which we were unprepared, coming, as it does, from a journal which has assumed so conservative an attitude in the question of a substitution of ether for chloroform, and which we are glad to see is now yielding to the irresistible argument of facts. In this country we may be said to have entered upon the "total abstinence" stage, as we learn from one of our New York exchanges that the commissioners have interdicted the use of chloroform as an anæsthetic at Bellevue Hospital.

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[1] The last number of the British Medical Journal which we have received announces three more deaths from this cause.

CERULIAN GREENNESS.

Now that the public mind is occupied with the silly blue glass mania the following passage by Addison, from the *Spectator* of May 24, 1712, may be interesting. The physiology is, to say the least, as good as General Pleasanton's, and the inference that nature is best adapted as it is to the general health of living creatures is, we think, at once sensible and scientific. "There are writers of great distinction who have made it an argument for Providence that the whole earth is covered with green, rather than with any other color, as being such a right mixture of light and shade that it comforts and strengthens the eye instead of weakening or grieving it. For this reason, several painters have a green cloth hanging near them, to ease the eye upon after too great an application to their coloring. A famous modern philosopher accounts for it in the following manner: All colors that are more luminous overpower and dissipate the animal spirits which are employed in sight; on the contrary, those that are more obscure do not give the animal spirits a sufficient exercise; whereas the rays that produce in us the idea of green fall upon the eye in such a due proportion that they give the animal spirits their proper play, and by keeping up the struggle in a just balance excite a very pleasing and agreeable sensation. Let the cause be what it will, the effect is certain, for which reason the poets ascribe to this particular color the epithet of cheerful."

We are not aware what the origin of the expressions "the blues" and "blue devils" may be, but they certainly are not suggestive of cheerful associations. We occasionally have to inform correspondents that in our editorial capacity we never prescribe, but we are tempted for once so far to depart from our rule as to suggest to hypochondriacs, who are always on the alert for new remedies, to try the effect of blue pill before investing in blue glass.

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MEDICAL NOTES.

— We regret to announce the death of Dr. C. E. Buckingham, professor of obstetrics in Harvard University, which took place on Monday last. He took his degree of A. B. at Harvard in 1840, and was graduated from the medical department in 1844. He was chairman of the Committee of Ethics of the Massachusetts Medical Society, where he did much efficient service.

The support which he has given to the JOURNAL of late years has helped largely to place it upon its present footing. For the last two years the pressure of active professional duties has told severely upon him, at times incapacitating him from all work. His death at a comparatively early age will be a great loss to the profession.

— We are authorized to state that, owing to the large number of dissertations offered in competition for the Warren Triennial Prize, their voluminous character, and the necessity for binding most of the manuscripts, a very long period must elapse before an award can be made.

— In an article on Poisonous Mushrooms, by Isaac Ott, M. D., published in *The Journal of Nervous and Mental Diseases*, January, 1877, the author arrives at the following conclusions: —

"(1.) That at least in one species, *Agaricus muscarius*, there is an alkaloid called muscarine; that *A. muscarius* also contains a base called amanitine, a non-poisonous body.

"(2.) That muscarine is a highly poisonous agent, and that it is probably the poisonous body in all mushrooms of a noxious nature, associated with another alkaloid.

"(3.) That in mushroom poisoning with the usual employment of emetics, stomach-pump, purgatives, and gallic acid, atropine should be given subcutaneously, say $\frac{1}{100}$ of a grain, the dose to be repeated according to indications."

— A course of popular scientific lectures under the auspices of the Harvard Natural History Society will be held on Thursday evenings in the Saunders Theatre, Cambridge, beginning this evening, when Professor N. S. Shaler will give an account of the Climate of North America. Next Thursday Professor William James will lecture upon Recent Investigations on the Brain. The course consists of six lectures on successive Thursdays, and judging from the programme they promise to be exceedingly interesting.

— Professor Ludwig Mauthner, of Innsbrück, has retired from the chair of ophthalmology into private life. He contributed in 1868 the Lehrbuch d. Ophthalmologie; and in 1876 Die optischen Fehler d. menschlichen Auges, to the literature of that department.

— Dr. Lannelongue, of Bordeaux, imitating the method followed by Dr. Verneuil, has recently performed gastrotomy on a patient afflicted with an impassable stricture of the œsophagus. Five days after the operation there were no unfavorable symptoms, and the patient was taking food well through the gastric fistula.

THE JEFFERSON MEDICAL COLLEGE HOSPITAL.

Messrs. Editors, — The Jefferson Medical College Hospital is so near completion that it will not be premature to attempt a description of this fine building. In giving its location I regret that I cannot say that it is on Broad Street, where it probably would have been if the funds of the college had permitted. There was much and warm discussion before the managers and the building committee could decide to place the hospital where it now is. Many, very many, good and strong reasons were advanced against the selection of this location. "It is an improper place for a hospital." "It is not sufficiently public." "The streets about the locality are too narrow." "The hospital could in this place never receive the proper amount of fresh air." "In such a cramped position, surrounded on all sides by other buildings, the death-rate of the hospital will be excessive." "It is simply an absurdity to erect a hospital in such a place." "In fifteen or twenty years we shall have to move elsewhere and be forced to erect another hospital." "If we have n't funds enough at present to warrant building on a vacant Broad Street lot, then let us wait a dozen years if necessary," and so forth. After much debate the decisions reached were that now was the time for building; the college could not wait another year; it could not afford to buy land on Broad Street; the locality proposed was very near the college, and hence convenient for all concerned, etc., etc. So the fiat went forth, the land was purchased, and in January, 1876, ground was broken for the hospital. The college building stands on the west side of South Tenth Street; on its south side is a narrow street, Medical Street; on its northern side a block of ordinary buildings, which separate it from Sansom Street; on its western side a cluster of small, cheap houses, which stand directly between the college and the new hospital. The building committee have vainly tried to buy the land which forms this hiatus; but as has often occurred in similar cases the owner will not sell at any price within reason. Hence the hospital stands perhaps one hundred feet from the college building, bounded on its northern side by Sansom Street (upon which also open the back doors of Chestnut Street stores, flanked by small dwelling-houses, carpenters' shops, etc.); on its western side by Juvenal Street, a mere alley-way which admits the passage of a single vehicle only at a time; on its southern side by Medical Street, also a narrow way, upon the opposite side of which open back gates; on its eastern side are the buildings before mentioned, which separate it from the college building. Fortunately, the buildings which surround the hospital are in almost every case only two or three stories in height, so that when you reach the main wards, on the third and fourth floors, you find that nothing intercepts the view, that both breeze and sunlight pour in without let or hindrance, and that patients will have a superb outlook over the city. It may be that a better location could have been chosen; but the hospital is central, students will lose no time in going to and fro between college and hospital, and in case of accidents, or of need of medical aid, in the heart of the city, here is every convenience close at hand. As regards the probable death-rate of this hospital much will of course depend upon the manner in which it is kept. Perfect cleanliness, abundance of sunshine, constant draughts of pure air, good ventilation, and unceasing vigilance against various infections are what tell the story in the long run in any hospital. They are of more worth than architects' ingenuity or builders' skill, and all of these aids this hospital can have. Hence I see no reason why it should not have a death-rate as low as that of any other city hospital. But I must express the regret that there is no garden, and consequently no lounging place or promenade out of doors for future patients. In time, however, this may be remedied. As the funds of the college increase, land for a garden can be purchased. As it is, a pressing appeal to the state legislature for an additional $100,000 has just been made, and it is earnestly hoped that the response may be favorable, especially so in view of the fact that a committee from the state congress has within a few days visited the new hospital. The members were delighted with all they saw, and went away with a new and deeper interest in the welfare of the college and hospital.

To turn now to the building itself. It is a noble structure, very handsome and sightly. The architects were Messrs. Furness and Hewitt, of Philadelphia. The style of architecture may be termed eclectic, not being modeled after any one school. Mr. Furness has evidently depended upon his unfailing originality, and as usual has given universal satisfaction. The material of which it is composed is "stretched" brick, with Ohio stone trimmings. The bricks are laid in black mortar, which gives the effect of dark pointing. There are five stories and a roomy basement. The ground-plan measures one hundred and twenty-seven by one hundred and seventeen feet. Entering by the main door from Sansom Street we find ourselves in a vestibule which opens into a corridor eleven feet three inches in width. This corridor crosses the whole breadth of the building, and terminates in an opposite entrance on Medical Street. On the right of the Sansom Street entrance is a janitor's room; at the right of this a spacious apothecary's apartment, which occupies the northwest corner of the building on the first floor. Over this, on a half story, are the apothecary's sleeping rooms, etc. Passing along the main corridor, the next apartment on the right is the "reception room" for all out-patients. Here they will be assorted and afterward sent to the surgeon, physician, obstetrician, etc., as the case may require. This room measures about thirty-five feet by twenty-eight feet, has two large windows, and in opposite corners spacious water-closets for the two sexes.

The next right-hand door from the corridor admits us to the surgeon's room. Here, at his hour, he will find patients who have been sent in from the reception room. Opening out of this is his private room, where he may examine single patients, or even private patients if he so choose. Every one of these private rooms has its washing and water-closet conveniences. The next opening on the right of the corridor is the main stair-way, which, being the same on every floor, I will describe *in toto* here. When we reach the lower landing, in going along the corridor, our feet leave wood and strike iron, for this and every other landing up to the roof is of solid iron. The stairs are iron set in stone and brick. The railings are of the same metal. The stairs wind around an iron and heavy wire elevator which ascends to the fifth story, thus virtually doing away with the stairs in so far as the patients and visiting physicians are concerned. The lower landing leads also to a short flight of steps which end at the Juvenal Street door. On every main landing of the stairway are two large fire-plugs, to each of which a coil of hose will be kept constantly attached. These fire-plugs are connected with large Worthington duplex steam-pumps in the basement, which can force water all over the building. The plugs also have the pressure of water from an immense iron tank in the fifth story which will always be kept full, and they receive water directly from the street mains. It can hardly be possible, then, in case of fire that an abundant supply of water would be lacking. It will thus be seen that the main stair-way is a veritable fire-escape which, if need occur, can be kept deluged with water. Behind the stair-way (first floor on the right) are the dining and sitting rooms of the officers of the house. These are reached from the floor above by a private staircase, and occupy the southwestern corner of the building. Returning now to the Sansom Street entrance of the corridor, we find on our left a small waiting room for medical out-patients who are to go before the students. Across a passage way is the medical lecturer's private room. The only other left-hand opening out of the corridor leads into store-rooms. When we again reach the iron stair-way we turn to the left into a passage way, on the right hand of which are the medical, obstetric, and eye apartments, each having its private room. The oculist has also a third, the "dark room," in which to use the ophthalmoscope. These rooms, together with the officers' rooms before mentioned, occupy the southern portion of the first floor. house. This space is entirely filled by the noble lecture room and its ante- We have a remaining large space north of these rooms into which the passage way opens, and which extends to the northern or Sansom Street side of the rooms. The latter are on the left of the waiting room already mentioned as being on the left entrance of the corridor, and consist of a second, the surgical waiting room, surgeon's private room, and an apartment for private operations or examinations. These have nothing in common with the surgical and medical rooms on the other side of the house. Entering now the lecture room we find ourselves in an apartment in the form of an ellipse, with seats ascending in rows to the top of the building; for the lecture room is an independent structure, having its own sky-light, and completing the square, the other two sides of which are formed by the main building and its southern wing. The latter, of course, are several stories higher than the lecture room. An arc of the lecture-room ellipse, over the private entrance, has no benches. This space was thus left unoccupied at the suggestion of Professor Gross, in order to spare the lecturer the necessity of constantly turning round to address the students in the rear, as he must do in the old amphitheatre in the college. The benches here are of poplar, and are very comfortable, the seats being seventeen inches and the backs twenty-five inches high. In order to make it convenient for the students of one row to look over the heads of their fellows in a front row, an allowance of eight inches above the eyes of a person of ordinary height when sitting was made for each row. A common annoyance was thus avoided. The "bull-ring," as everybody here calls it, will have a revolving table. Water is abundantly provided, and the sink for washing sponges, etc. is furnished with a four-inch waste-pipe, expanding at its upper end and covered with two grated valves, which are eight inches apart, a New York invention, and very convenient. The room has twelve wall-ventilators, iron roof-girders, a double glazed roof with palace-car top, the windows being easily managed by cords from below. Students enter from the second story of the southern wing of the hospital about half-way up the seats. Opposite the lecturer's entrance is a second, by means of which patients will be brought into the room on a wheeled platform, to which they will be moved after being brought down from the wards on the elevator, bed and all. The lecture-room will seat six hundred to six hundred and fifty students, has abundance of window-light, and is, all in all, the finest amphitheatre of which I have any knowledge. Beneath the benches are several rooms which will be used for storage purposes.

Ascending to the second floor of the hospital we find the same arrangement of main passage ways running south, then east. At the Sansom Street end are two bath-rooms, then going south, four large rooms, three of which will be devoted to special cases or classes of patients; the fourth will be used as the superintendent's business room. In the southwestern corner, beyond the fire-escape, are the janitor's rooms, five urinals with glass backs and flag-stone floor, and five water-closets for the use of students. From this point, going east, are four other small, special wards. It is from the main passage way, just here, that students enter the lecture room. Mounting to the third floor we come upon the main wards of the house. One of these occupies the southern wing and runs east and west. The other occupies the western wing and runs north and south. Each ends at the fire-escape, in the corner beyond which are three bath-rooms, two water-closets, nurses' special diet kitchen, and a steam-closet, lined with glass, and having a door made perfectly air-tight by means of strips of rubber. This steam-bath is for the use of skin cases, and is modeled after those in the New York Hospital. In the angle on the northeast of the passage ways are linen closets and store-rooms. One ward is about seventy feet long by forty feet wide. The other about five feet smaller each way. In one there are six iron columns as supporters, in the other three. There will be about two thousand cubic feet of air to each bed. The wards are ventilated by what is known as the "up-and-down" system, which may be explained as follows: —

In order to secure dryness the wards have double walls. Between them are foul-air ducts with openings from the wards near the ceiling and at the floor. These foul-air ducts, which have been put in as plentifully as space permitted, run straight to the basement, turn at right angles beneath the cement floor, and terminate in the big stacks or chimneys, within each of which is a large iron pipe kept constantly hot by means of a heated current from the furnaces. In this way the foul air around the pipe becomes heated, ascends, and thus produces a movement which acts on the air in the wards. That this system is thoroughly effectual has already been accidentally proved. The wards one day became filled with smoke. Soon after it was seen issuing from the chimneys in which are located the foul-air shafts. Fresh air enters the wards in two ways: first, cold air enters directly by means of gratings inserted in the walls beneath each window. Directly in front of each opening stands a radiator heated by steam. The cold air from without becomes warmed while passing over these radiators. Secondly, fresh air enters the basement by large ducts, is there heated, and afterward driven up into the wards, which it enters by means of the ordinary register. At each end of each ward is a brick fireplace for the purpose of further purification of the air. One corner of each ward is partitioned off, and will be used as nurse's chamber. The wards and especially those on the fourth floor are above the level of surrounding buildings, have a flood of sunlight, abundance of air, and a fine outlook as well. The floors are composed of narrow strips of hard pine, smoothly planed, and are to be thoroughly shellacked. In these apartments as well as in every other place where there are water-pipes, the latter instead of being out of sight beneath the floors or behind the walls are all in full view. Of course they do not add to the beauty of the interior arrangements but the object in thus placing them is practical. In case of needed repairs, a leak or other trouble can be found at once, and remedied without necessity of tearing away wood-work. Every ward has a dumb-waiter which runs down to the basement. The fourth floor is precisely like the third. The fifth floor will be kept for the use of private patients. There are ten chambers, five on either side of the passage way, each more spacious than a single room in a hotel. Near by are the bath-room and three water-closets, large linen and other closets, nurses' room, etc. On this floor are also the parlors and chambers of resident physicians and matron, with private bath-room, etc., to each suite. From the top of the building and running down to the basement is an immense tin tunnel, which opens on each floor, and which will be used as a "soiled-clothes shute." It is easy to see the convenience of this ingenious aid. It will, too, in a measure, promote the good health of the hospital. On the fifth floor the nurses' room has an annunciator to indicate in which of the private rooms the bell has been rung. The nurses' room communicates with the resident physicians' room by means of speaking-tubes, which also run down to the apothecary's department. There are also electric bells all over the house for the use of the superintendent, physicians, lecturers, etc., and the speaking-tubes run to every floor.

Finally the basement. Without giving its plan I will mention its uses and conveniences. Its main centre is occupied by the boiler room and rooms for coal and wood. The sides of the basement are occupied by patients' smoking and recreation rooms, floored with cement; servants' rooms floored with wood and having bathing and other conveniences attached; servants' dining-room, large store and china closets floored with lithogen; a large kitchen well ventilated and supplied with every contrivance for cooking; spacious laundry, ironing and drying rooms, and pantry, all floored with lithogen; also the dead room. In the basement are two boilers, respectively forty and sixty horse-power, and two engines of fifteen horse-power, one of them high and the other a low pressure engine. One is used independently for the elevator, the other runs the washing and wringing machines and the mangle in the laundry. All the machinery can be run from either boiler. We also notice on every hand "man holes" which will serve the purpose of cleansing the foul-air ducts. Attached to every water-closet in the house is an invention by means of which every basin receives a certain amount of carbolic acid whenever the water is turned on. The whole structure is heated by steam. The walls throughout the building have a hard plaster finish. The main roof has a palace-car top, double glazed, and there are proper facilities for opening and closing the drop windows from below.

The land on which the building stands cost $45,000, the cost of the building was $94,000, of steam and gas fitting and heating power, $18,000, and bills for furnishing, etc., will probably make the total amount for the building, exclusive of land, $140,000 to $150,000.

If I have made myself clear, I have shown you that this hospital comprises every possible comfort and convenience, and that, although located in the heart of the city, its possibilities are not surpassed by those of any other city hospital. The building committee includes besides some of the trustees of the college, Professor Da Costa, Drs. Frank F. Maury, John Brinton, and Ellwood Wilson. Drs. Maury and Brinton have been especially and constantly active in superintending and planning the arrangements of the hospital, and to the former gentleman I am indebted for the ready courtesy with which he supplied me with many of the details of my letter. As yet, the time for the inauguration of the hospital has not been fixed, but some demonstration will probably occur before the winter class is dismissed. H. O.

PHILADELPHIA, *February* 6, 1877.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 10, 1877.

	Estimated Population, July 1, 1877.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1876.
New York	1,077,228	423	20.42	27.46
Philadelphia	850,856	270	16.50	22.88
Brooklyn	527,830	200	19.70	24.31
Chicago	420,000	155	19.19	20.41
Boston	363,940	127	18.15	23.39
Providence	103,000	22	11.11	18.34
Worcester	52,977	20	19.63	22.00
Lowell	53,678	23	22.28	22.21
Cambridge	51,572	15	15.12	20.54
Fall River	50,370	19	19.61	22.04
Lawrence	37,626	7	9.67	23.32
Lynn	33,524	9	13.96	21.37
Springfield	32,976	3	4.73	19.69
Salem	26,739	12	23.34	23.57

Suffolk District Medical Society. — A special meeting will be held at the rooms, 36 Temple Place, on Saturday evening, February 24th, at seven and a half o'clock. The following papers and cases will be read: —

Dr. D. Hunt, Obstetric Forceps.

Dr. E. W. Cushing, Plaster-of-Paris Bandages.

Dr. C. B Porter, A Case of Vesical Calculus in the Female. Removal of Bougie from the Bladder, complicated by Stricture.

Tea, etc., at nine o'clock. A. L. Mason, *Secretary*.

Books and Pamphlets Received. — Second Report of the Salem Hospital. Salem, Mass. 1877.

Fifth Annual Report of the Board of Trustees of the New York Ear Dispensary. New York: G. P. Putnam's Sons. 1876.

Boston Society of Civil Engineers. Report of Standing Committee of the Metric System of Weights and Measures, December, 1876.

The Metrical System in Prescriptions. By John M. Maisch. (From the American Journal of Pharmacy.)

Transactions of the Wisconsin State Medical Society, 1876. Milwaukee. 1876. Pp. 149.

Annual Report of the New England Hospital for Women and Children for the Year ending September 30, 1876.

Case of Ovariotomy. By David Prince, M. D., Jacksonville, Illinois. (Reprinted from the St. Louis Medical and Surgical Journal, December, 1876.

The Sanitary Relations of Hospitals. By William Pepper, A. M., M. D. (Extracted from the Transactions of the American Public Health Association.)

An Address by Dr. William S. Ely, as Retiring President of the Medical Association of Central New York, at Rochester, May 16, 1876.

We have received from George T. Brown & Co., 6 Beacon Street, a neat little case-book, of the size of a prescription paper and containing two "blocks," one for use in writing prescriptions, the other, on the opposite cover, containing blanks for the register of the name, age, etc., of the patient, and a copy of the prescription. A monthly visiting list is also attached. With the book is a practical illustration of the metric system prepared by Dr. Francis H. Brown.